

Remarks

I. Status of Claims

Claims 1-2, 5-8, and 10-14 are currently pending in the application. Claims 1, 7, and 11 are independent. By this amendment, claim 11 is amended and claims 12-14 are newly added. Support for this additional language can be found at least on page 13, line 34 to page 14, line 1 of the present application.

Claims 1-2, 5-8, and 10-11 stand rejected under 35 USC 103(a) as being allegedly unpatentable over Kawashima *et al.* (US 6,851,258) (hereinafter “Kawashima”) in view of Tashiro *et al.* (US 6,662,480) (hereinafter “Tashiro”), Schaller *et al.* (US 6,948,311) (hereinafter “Schaller”), and Boretto *et al.* (US 6,941,750) (hereinafter “Boretto”).

The Applicant respectfully requests reconsideration of these rejections in view of the foregoing amendments and the following remarks.

II. Pending Claims

Independent claims 1, 7, and 11 stand rejected under 35 USC 103(a) as being allegedly unpatentable over Kawashima in view of Tashiro, Schaller, and Boretto.

The Applicant respectfully submits that claims 1, 7, and 11 are patentable over the cited references at least because they recite, “the intermittent fuel addition increases a catalyst temperature in order to burn up particulate matter that is deposited at an upstream end of a particulate filter.”

The present application regards an exhaust purifying apparatus for an internal combustion engine that, by performance and stopping of concentrated intermittent fuel addition, increases a catalyst temperature in order to burn up particulate matter that is deposited at an upstream end of a particulate filter.

For example, the specification describes the present application as follows:

“As the catalyst bed temperature is increased in stages in the above described PM elimination control, PM collected about the catalysts is burned, and the PM accumulation amount is reduced as shown in Fig. 3(a). However, at the upstream end of the NOx catalytic converter 25 and the upstream end of the PM

filter 26, some PM remains even if the above described PM elimination control is performed. The reason why PM remains is believed to be that PM is likely to be deposited at the exhaust upstream end of the NOx catalytic converter 25 and the exhaust upstream end of the PM filter 26, and the supply of unburned fuel component in the PM elimination control cannot supply a sufficient amount of unburned fuel component per unit time to burn the PM completely. Particularly, in the NOx catalytic converter 25, which is located upstream of the PM filter 26, a greater amount of PM that is not burned in the PM elimination control remains at the upstream end.” See page 13, lines 7-22, of the specification of the present application; See also ¶ [0098] of this application’s US Patent Publication No. 2006/0168939.

Thus, the Applicant respectfully submits that independent claims 1, 7 and 11 require that the catalyst temperature is increased to burn up particulate matter that is deposited at an upstream end of a particulate filter. (emphasis added)

By the Examiner’s own admission, Kawashima does not disclose such an arrangement. Therefore, the Office Action cites Boretto; however, in contrast to the present application, as shown in FIG. 3, Boretto merely discloses particulate matter deposited by large amounts at the downstream end (right end) of a particulate filter and deposited by small amounts at the upstream end (left end) of the particulate filter. The Applicant respectfully submits that Boretto does not disclose that the particulate matter is deposited at an upstream end of a particulate filter as required by Applicant’s claims.

Further, the Applicant respectfully submits that Tashiro and Schaller do not cure these deficiencies. More particularly, they do not disclose that the particulate matter is deposited at an upstream end of a particulate filter.

Therefore, the Applicant respectfully submits that, for at least these reasons, independent claims 1, 7, and 11, as well as any of their dependent claims, are patentable over the cited references.

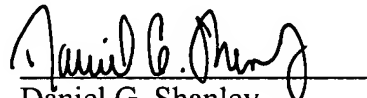
III. Conclusion

In light of the above discussion, Applicants respectfully submit that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance. The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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